

RAW SEQUENCE LISTING

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Application Serial Number: 10/561,743
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DATE: 04/20/2006

PATENT APPLICATION: US/10/561,743

TIME: 12:19:35

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3 <110> APPLICANT: Efthymios Ippikoglou
 5 <120> TITLE OF INVENTION: METHOD OF PRODUCING RECOMBINANT DNA MOLECULES
 7 <130> FILE REFERENCE: 02901/0203760-US0
 9 <140> CURRENT APPLICATION NUMBER: 10/561,743
 10 <141> CURRENT FILING DATE: 2005-12-20
 12 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/006600
 13 <151> PRIOR FILING DATE: 2004-06-18
 15 <150> PRIOR APPLICATION NUMBER: 60/480,581
 16 <151> PRIOR FILING DATE: 2003-06-20
 18 <150> PRIOR APPLICATION NUMBER: 60/493,586
 19 <151> PRIOR FILING DATE: 2003-08-07
 21 <160> NUMBER OF SEQ ID NOS: 31
 23 <170> SOFTWARE: PatentIn version 3.1
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 1909
 28 <212> TYPE: DNA
 29 <213> ORGANISM: Homo sapiens

W--> 30 <220> FEATURE:

31 <221> NAME/KEY: misc_feature
 32 <222> LOCATION: (1)..(1909)
 33 <223> OTHER INFORMATION: cDNA sequence for human b-FSH
 35 <400> SEQUENCE: 1

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40	attgcaatag	agaaagaaga	atgtcgtttc	tgcataagca	tcaacaccac	ttggtgtgct	180
42	ggctactgct	acaccaggga	tctggtgtat	aaggaccag	ccaggcccaa	aatccagaaa	240
44	acatgtacct	tcaagggaact	ggtatatgaa	acagtgtgag	tgcccggctg	tgctcaccat	300
46	gcagattcct	tgtatacata	cccagtgagg	acccagtgct	actgtggcaa	gtgtgacagc	360
48	gacagcactg	attgtactgt	gcgaggcctg	ggggccagct	actgctcctt	tggtgaaatg	420
50	aaagaataaa	gatcagtgga	catttcaggc	cacataccct	tgtcctgaag	gaccaagata	480
52	ttcaaaaagt	ctgtgtgtgt	gcaatgtgcc	caggggacaa	accactggat	caggggattc	540
54	agactctact	gatccctggg	ctactggcag	agggaaactc	gggaattgag	agtgtgtggg	600
56	gccaggactc	catcatgatt	cagctctata	ttcctaggct	tgatttcata	aggtttattc	660
58	agtcttaact	cacagacttg	tgctgtgttt	cttctttaa	aatcttagaa	atcttctcag	720
60	gcaatgcctc	tctcttaggg	ggaaacataa	gcctagaagg	aggaagcagt	aatgggagtg	780
62	agtgaagaa	ctaactgcag	cagtcttctg	gtagactctt	gggccctcta	gagcaaggct	840
64	agcatcttca	gcattgtagc	gtcaatgcct	agcactctgc	ctggaactta	gaaacacaac	900
66	aatggcttct	ttagatcaga	aagggtcaagg	gtagaaaata	ctggaagagg	atgtttgagg	960
68	taagctgatg	aggctgcccg	cagcacacca	gtcccagtaa	agttagtggc	atcagtttca	1020
70	cctcgctttt	tctccagcac	atgagtattg	agacatgatg	tgtctttctg	aattgttttg	1080
72	tacagatggg	gagtaacaga	gctcgaagat	ttccaagcta	ttactaccaa	gcctgttagt	1140
74	taagggcaaa	ggcaagaaat	tgtaatttgg	ggctgtggaa	attagcctgc	ctctattcat	1200
76	tacttaaaca	aattgatcac	atgctactag	gctcctgcaa	actccttttt	gagataaagg	1260

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78 gaaaaaacca aactatctca ccctaccctc cctaggatcc acttcttttg aatgacaaag 1320
80 gatttgaaag taggtttgaa agcagtttca gcaatttaat aaatataatt aatttgtcta 1380
82 ccaaataatat ttgtataaat aatagctcct ttagaaagaa ttagccatgg ggggatcgag 1440
84 gggaaactgc tgttttctag gatcctgtct acatcaatct tctattttat ccatccatgt 1500
86 tctcccaaat ctgtgctttc tttcaacagg ttatatatta aaactatttc atgagttgat 1560
88 ttctttttaa cgtgttaact gtcttagtta tgcactcagt ttcacactca tattgtttaa 1620
90 ctaattttatt taaagtctta tttttttaat aaagatgcta gccaccagag tcacggcttg 1680
92 gattgtttta tgtacaaaca gatgacttag aaattctgta ttttataata atattagtgg 1740
94 aatgaaatct taaaatataa ttcccagtggt ttctataaat attacctttc cttatctttg 1800
96 gagatattaa aaataatttt gttggatttc tgaagtgttt tgtcacttaa atttcctgtc 1860
98 attttttgaa gacattttct gatgtaattt gggagaaaaa aagcataga 1909
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102 <211> LENGTH: 54
103 <212> TYPE: DNA
104 <213> ORGANISM: Homo sapiens
106 <220> FEATURE:
107 <221> NAME/KEY: misc_feature
108 <222> LOCATION: (1)..(5)
109 <223> OTHER INFORMATION: B-FSH signal sequence
111 <400> SEQUENCE: 2
112 atgaagacac tccagttttt cttccttttc tgttgctgga aagcaatctg ctgc 54
115 <210> SEQ ID NO: 3
116 <211> LENGTH: 159
117 <212> TYPE: DNA
118 <213> ORGANISM: Homo sapiens
120 <220> FEATURE:
121 <221> NAME/KEY: exon
122 <222> LOCATION: (1)..(159)
123 <223> OTHER INFORMATION: exon #1 of human B-FSH (NM_000510)
125 <400> SEQUENCE: 3
126 atg aag aca ctc cag ttt ttc ttc ctt ttc tgt tgc tgg aaa gca atc 48
127 Met Lys Thr Leu Gln Phe Phe Phe Leu Phe Cys Cys Trp Lys Ala Ile
128 1 5 10 15
130 tgc tgc aat agc tgt gag ctg acc aac atc acc att gca ata gag aaa 96
131 Cys Cys Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys
132 20 25 30
134 gaa gaa tgt cgt ttc tgc ata agc atc aac acc act tgg tgt gct ggc 144
135 Glu Glu Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly
136 35 40 45
138 tac tgc tac acc agg 159
139 Tyr Cys Tyr Thr Arg
140 50
143 <210> SEQ ID NO: 4
144 <211> LENGTH: 231
145 <212> TYPE: DNA
146 <213> ORGANISM: Homo sapiens
148 <220> FEATURE:
149 <221> NAME/KEY: exon
150 <222> LOCATION: (1)..(231)

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151 <223> OTHER INFORMATION: exon #2 of human B-FSH (NM_000510)

153 <400> SEQUENCE: 4

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154 gat ctg gtg tat aag gac cca gcc agg ccc aaa atc cag aaa aca tgt      48
155 Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln Lys Thr Cys
156 1          5          10          15
158 acc ttc aag gaa ctg gta tat gaa aca gtg aga gtg ccc ggc tgt gct      96
159 Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro Gly Cys Ala
160          20          25          30
162 cac cat gca gat tcc ttg tat aca tac cca gtg gcc acc cag tgt cac      144
163 His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr Gln Cys His
164          35          40          45
166 tgt ggc aag tgt gac agc gac agc act gat tgt act gtg cga ggc ctg      192
167 Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val Arg Gly Leu
168          50          55          60
170 ggg ccc agc tac tgc tcc ttt ggt gaa atg aaa gaa taa      231
171 Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met Lys Glu
172 65          70          75

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175 <210> SEQ ID NO: 5

176 <211> LENGTH: 129

177 <212> TYPE: PRT

178 <213> ORGANISM: Homo sapiens

180 <400> SEQUENCE: 5

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181 Met Lys Thr Leu Gln Phe Phe Phe Leu Phe Cys Cys Trp Lys Ala Ile
182 1          5          10          15
184 Cys Cys Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys
185          20          25          30
187 Glu Glu Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly
188          35          40          45
190 Tyr Cys Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys
191          50          55          60
193 Ile Gln Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg
194 65          70          75          80
196 Val Pro Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val
197          85          90          95
199 Ala Thr Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys
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202 Thr Val Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met Lys
203          115          120          125
205 Glu

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209 <210> SEQ ID NO: 6

210 <211> LENGTH: 390

211 <212> TYPE: DNA

212 <213> ORGANISM: Artificial Sequence

214 <220> FEATURE:

215 <223> OTHER INFORMATION: B-FSH X1X2 PCR product

217 <300> PUBLICATION INFORMATION:

218 <308> DATABASE ACCESSION NO: GenBank / NM_000510

219 <309> DATABASE ENTRY DATE: 2002-11-05

220 <313> RELEVANT RESIDUES: (1)..(390)

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222 <400> SEQUENCE: 6

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223 atgaagacac tccagttttt cttccttttc tgttgctgga aagcaatctg ctgcaatagc      60
225 tgtgagctga ccaacatcac cattgcaata gagaaagaag aatgtcgttt ctgcataagc      120
227 atcaacacca cttgggtgtgc tggtactgac tacaccaggg atctggtgta taaggaccca      180
229 gccaggccca aaatccagaa aacatgtacc ttcaaggaac tggatatatga aacagtgaga      240
231 gtgcccggct gtgtccacca tgcagattcc ttgtatacat acccagtggc caccagtgtg      300
233 cactgtggca agtgtgacag cgacagcact gattgtactg tgcgaggcct ggggcccagc      360
235 tactgtcctt ttggtgaaat gaaagaataa                                     390

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238 <210> SEQ ID NO: 7

239 <211> LENGTH: 25

240 <212> TYPE: DNA

241 <213> ORGANISM: Artificial Sequence

243 <220> FEATURE:

244 <223> OTHER INFORMATION: primer PFX1 n.t. position 40-64 in SEQ ID NO: 1, cDNA

sequence

245 for human B-FSH

248 <400> SEQUENCE: 7

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249 atgaagacac tccagttttt cttcc                                     25

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252 <210> SEQ ID NO: 8

253 <211> LENGTH: 21

254 <212> TYPE: DNA

255 <213> ORGANISM: Artificial Sequence

257 <220> FEATURE:

258 <223> OTHER INFORMATION: primer PRX1 n.t. position 198-178 in SEQ ID NO: 1, cDNA

sequence

259 for human B-FSH

261 <400> SEQUENCE: 8

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262 cctggtgtag cagtagccag c                                     21

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265 <210> SEQ ID NO: 9

266 <211> LENGTH: 21

267 <212> TYPE: DNA

268 <213> ORGANISM: Artificial Sequence

270 <220> FEATURE:

271 <223> OTHER INFORMATION: primer PFX2 n.t. position 199-219 in SEQ ID NO: 1, cDNA

sequence

272 for human B-FSH

274 <400> SEQUENCE: 9

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275 gatctggtgt ataaggacc a                                     21

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278 <210> SEQ ID NO: 10

279 <211> LENGTH: 23

280 <212> TYPE: DNA

281 <213> ORGANISM: Artificial Sequence

283 <220> FEATURE:

284 <223> OTHER INFORMATION: primer PRX2 n.t. position 429-407 in SEQ ID NO: 1, cDNA

sequence

285 for human B-FSH

287 <400> SEQUENCE: 10

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288 ttattctttc atttcaccaa agg                                     23

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291 <210> SEQ ID NO: 11

292 <211> LENGTH: 42

293 <212> TYPE: DNA

294 <213> ORGANISM: Artificial Sequence

296 <220> FEATURE:

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297 <223> OTHER INFORMATION: primer PRX1-PFX2'
299 <400> SEQUENCE: 11
300 tgggtcctta tacaccagat ccctgggtgta gcagtagcca ga 42
303 <210> SEQ ID NO: 12
304 <211> LENGTH: 39
305 <212> TYPE: DNA
306 <213> ORGANISM: Artificial Sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: primer SDK-PFX1
311 <400> SEQUENCE: 12
312 tcgaaggaga tagaatgaag acactccagt ttttcttcc 39
315 <210> SEQ ID NO: 13
316 <211> LENGTH: 180
317 <212> TYPE: DNA
318 <213> ORGANISM: Homo sapiens
320 <220> FEATURE:
321 <221> NAME/KEY: misc_feature
322 <222> LOCATION: (1)..(180)
323 <223> OTHER INFORMATION: X1UR product
325 <400> SEQUENCE: 13
326 atgaagacac tccagttttt cttccttttc tgttgctgga aagcaatctg ctgcaatagc 60
328 tgtgagctga ccaacatcac cattgcaata gagaaagaag aatgtcgttt ctgcataagc 120
330 atcaacacca cttgggtgtgc tggctactgc tacaccaggg atctgggtgta taaggaccca 180
333 <210> SEQ ID NO: 14
334 <211> LENGTH: 704
335 <212> TYPE: DNA
336 <213> ORGANISM: Homo sapiens
338 <220> FEATURE:
339 <221> NAME/KEY: misc_feature
340 <222> LOCATION: (1)..(704)
341 <223> OTHER INFORMATION: alpha-FSH (NM_000735) full length cDNA sequence
343 <400> SEQUENCE: 14
344 gcagttactg agaactcata agacgaagct aaaatccctc ttcggatcca cagtcaaccg 60
346 ccctgaacac atcctgcaaa aagcccagag aaaggagcgc catggattac tacagaaaat 120
348 atgcagctat ctttctggtc acattgtcgg tgtttctgca tgttctccat tccgctcctg 180
350 atgtgcagga ttgcccagaa tgcacgctac aggaaaaccc attcttctcc cagccgggtg 240
352 cccaataact tcagtgcatt ggctgctgct tctctagagc atatcccact ccaactaagg 300
354 ccaagaagac gatgttggtc caaaagaacg tcacctcaga gtccacttgc tgtgtagcta 360
356 aatcatataa cagggtcaca gtaatggggg gtttcaaagt ggagaaccac acggcgtgcc 420
358 actgcagtac ttgttattat cacaaatctt aaatgtttta ccaagtgtct tcttgatgac 480
360 tgctgatttt ctggaatgga aaattaagtt gtttagtggt tatggctttg tgagataaaa 540
362 ctctcctttt ccttaccata ccactttgac acgcttcaag gatatactgc agctttactg 600
364 ccttcctcct taccctacag tacaatcagc agtctagttc ttttcatttg gaatgaatac 660
366 agcattaagc ttgttccact gcaaataaag ccttttaaat catc 704
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370 <211> LENGTH: 30
371 <212> TYPE: DNA
372 <213> ORGANISM: Artificial Sequence
374 <220> FEATURE:

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VERIFICATION SUMMARY

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